

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended): An integrated modem circuit ~~comprising~~ comprises:
a processor-system (1) and hardware (2,3) for exchanging signals with ~~another~~ a second
modem circuit and, ~~which integrated modem circuit comprises~~
a digital phase locked loop filter (11), ~~characterized in that~~ wherein said integrated
modem circuit exchanges signals with ~~another~~ the second modem circuit at a speed of 1 Mb/s or
more, with and wherein said processor-system (1) ~~comprising~~ comprises filter software (11) for
embodying said digital phase locked loop filter, and ~~with~~ said hardware (2,3) ~~comprising~~
comprises at least one module (22,32) ~~for which~~ compensating compensates for sample
processing,

wherein said processor-system performs an initialization step for initiating software to be
run via said processor-system and/or a reading step for reading a software part at an address in a
memory, and/or a first detection step for detecting a first instruction, and/or a second detection
step for detecting a second instruction, and/or a third detection step for detecting an execution,
and/or an execution step for performing at least one execution.

2. (Currently Amended): The integrated modem circuit according to claim 1,
~~characterized in that~~ wherein said processor-system (1) ~~comprises~~ comprises sample software (14,15) for
processing samples in dependence of results originating from said phase locked loop filter (11).

3. (Currently Amended): The integrated modem circuit according to claim 2,
~~characterized in that~~wherein said hardware ~~(2,3)~~further comprises in a transmission path ~~(2)~~-a
mapper~~(21)~~, a first rotor~~(22)~~ and an inverse Fourier transformator~~(23)~~ and in a receiving path,
~~(3)~~-a Fourier transformator~~(33)~~, a second rotor~~(32)~~ and a demapper~~(34)~~, with at least one of
said first or second rotors ~~(22,32)~~ forming said at least one module.

4. (Currently Amended): The integrated modem circuit according to claim 3,
~~characterized in that~~wherein said processor-system (1)-comprises control software ~~(12,13)~~ for
controlling at least one of said first or second rotors ~~(22,32)~~-in dependence of results originating
from said phase locked loop filter~~(14)~~, with at least one of said transformators ~~(23,33)~~-being
controlled by results originating from said sample software~~(14,15)~~.

5. (Cancelled).

6. (Currently Amended): The integrated modem circuit according to claim ~~[[5]]~~ 1,
~~characterized in that~~wherein said processor-system (1)-performs in response to a positive
detection ~~(104)~~-of said first instruction a first adaptation step ~~(110)~~-followed by at least a fourth
detection step ~~(111)~~-and/or a fifth detection step ~~(112)~~, ~~with~~wherein said first adaptation step
~~(110)~~-and/or said fourth detection step ~~(111)~~-and/or said fifth detection step ~~(112)~~-~~being~~is
followed by a first incrementation step ~~(114)~~-for incrementing said address.

7. (Currently Amended): The integrated modem circuit according to claim 6,
~~characterized in that~~wherein said processor-system (1)-performs in response to a positive
detection ~~(105)~~-of said second instruction a sixth detection step ~~(115)~~-followed by at least a

second adaptation step ~~(116,117)~~, with said second adaptation step ~~(116,117)~~ and/or said sixth detection step ~~(115)~~ being followed by a second incrementation step ~~(118)~~ for incrementing said address.

8. (Currently Amended): A processor-system ~~(1)~~ for use in an integrated modem circuit, the integrated modem circuit comprising:

~~-said processor-system, (1) and hardware (2,3) for exchanging signals with another a~~
second modem circuit, and which integrated modem circuit comprises

a digital phase locked loop filter ~~(11)~~, ~~characterized in that wherein~~ said integrated modem circuit exchanges signals with ~~another the second~~ modem circuit at a speed of 1 Mb/s or more, with and wherein said processor-system ~~(1)~~ comprising filter software ~~(11)~~ for embodying said digital phase locked loop filter, and ~~with said hardware (2,3) comprising~~ comprises at least one module ~~(22,32)~~ for which compensates for sample processing,

wherein said processor-system performs an initialization step for initiating software to be run via said processor-system and/or a reading step for reading a software part at an address in a memory, and/or a first detection step for detecting a first instruction, and/or a second detection step for detecting a second instruction, and/or a third detection step for detecting an execution, and/or an execution step for performing at least one execution.

9. (Currently Amended): A processor program product to be run via a processor-system ~~(1)~~ for use in an integrated modem circuit, the integrated modem circuit comprising:

~~-said processor-system (1) and hardware (2,3) for exchanging signals with another a~~
second modem circuit, and, which integrated modem circuit comprises

a digital phase locked loop filter-(11), ~~characterized in that~~wherein said integrated modem circuit exchanges signals with ~~another~~ a second modem circuit at a speed of 1 Mb/s or more, ~~with and wherein~~ said processor program product ~~comprising~~ comprises the function of filtering (11)-for embodying said digital phase locked loop filter, and ~~with~~ said hardware (2,3) ~~comprising~~ comprises at least one module (22,32) ~~for which~~ compensates for sample processing,

wherein said processor-system performs an initialization step for initiating software to be run via said processor-system and/or a reading step for reading a software part at an address in a memory, and/or a first detection step for detecting a first instruction, and/or a second detection step for detecting a second instruction, and/or a third detection step for detecting an execution, and/or an execution step for performing at least one execution.

10. (Currently Amended): A method for use in an integrated modem circuit comprising a processor-system, (1)-~~and~~ hardware for exchanging signals with ~~another~~ a second modem circuit, ~~which integrated modem circuit comprises~~ and a digital phase locked loop filter-(11), ~~characterized in that~~wherein said integrated modem circuit exchanges signals with ~~another~~ a second modem circuit at a speed of 1 Mb/s or more, ~~with said~~ the method comprising the steps of:

-filtering for embodying said digital phase locked loop filter by means of filtering software, and (11)-~~and of~~

compensating for sample processing by means of at least one module (22,32)-of said hardware-(2,3),

wherein said processor-system performs an initialization step for initiating software to be run via said processor-system and/or a reading step for reading a software part at an address in a memory, and/or a first detection step for detecting a first instruction, and/or a second detection

step for detecting a second instruction, and/or a third detection step for detecting an execution, and/or an execution step for performing at least one execution.